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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,875	01/07/2002	Peter S. Mautino	MCT 01501	4951

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EXAMINER

JULES, FRANTZ F

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 02/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/041,875

Applicant(s)

MAUTINO ET AL.

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-16 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Specification

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "20" and "30" have both been used to designate hub section on page 7 of the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "20" has been used to designate both hub section and tail section. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recitation of a substantially flat portion disposed substantially in a vertical direction and which is

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substantially arcuate in a horizontal direction in claims 1, 13, 15 must be shown or the feature(s) canceled from the claim(s). The claim invention of the flat portion being arcuate in horizontal direction has not been identified in fig. 2 of the drawings. No new matter should be entered.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 3-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the

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remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2 recited the range of between about 3.5 inches and at about 7.0 inches which is a broad range, claims 3 recites a range of between about 4.0 inches and at about 5.5 inches which is the narrower statement of the range/limitation. Similar range within a range problem exists with the recitation of a range of between about 4.0 inches and at about 4.5 inches which is the narrower statement of the range/limitation.

Claims 6, 8-9 are rejected as being dependent upon rejected base claim 3.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6, 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawthorne et al (US 5,582,307) in view of Kaufhold (US 3,857,495).

Claims 1, 5-6, 12-16

Hawthorn et al discloses in Figs 1-7 a coupler knuckle casting having an enhanced bearing surface area comprising a tail section (18), a hub section (30) having a pivotable pinhole (16) formed therein with generally straight cylindrical sidewalls, a front face section (24A) connected to said hub section (30), said front face section including a

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nose section (22) and a pulling face portion (24) formed inwardly from said nose section which includes an enhance bearing (18A) which is substantially arcuate at the corners in a horizontal direction , and a transition section (12) joining said tail section (18) to said hub section (30), said transition section including a top metal section (68) and a bottom metal section (70) extending toward each other, wherein said nose section (22) includes a generally cylindrical opening (36) formed in an end portion thereof, see column 3, lines 26-34, column 5, lines 10-15.

Hawthorne et al disclose all of the features as listed above but fail to disclose a coupler knuckle having a substantially flat portion disposed substantially in a vertical direction extending for a predetermined distance in a vertical direction in at least a portion of the nose section and the front face portion. The general concept of providing a substantially flat portion disposed substantially in a vertical direction extending for a predetermined distance in a vertical direction in at least a portion of the nose section and the front face portion of a coupler knuckle is well known in the art as illustrated by Kaufhold, see figs. 1-10, abstract section. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hawthorn to include the use of a substantially flat portion disposed substantially in a vertical direction extending for a predetermined distance in a vertical direction in at least a portion of the nose section and the front face portion of a coupler knuckle as taught by Kaufhold in order to prevent formation of an overturning moment force on the coupler knuckle during coupling.

Claims 2-4, 10-11

Regarding using a substantially flat portion extending in the vertical direction in a range

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between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C as recited in claims 2-4, 10-11, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hawthorne et al to include the use of a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C in his advantageous system, as knuckle engagement surface design is a common and everyday occurrence throughout the coupler knuckle design art and the specific use of a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C would have been an obvious matter of mechanical expediency depending upon such factors as the loading imposed on the knuckle, the allowable lateral displacement between the coupler, the yield strength of the side knuckle material; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the knuckle which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

Allowable Subject Matter

9. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the references of record suggests a

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coupler knuckle casting having a front face section connected to a hub section, at least a portion of the front face portion and the nose section including an enhanced bearing surface area which includes a substantially flat portion disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction, said substantially flat portion extending for a predetermined length along said horizontal direction, wherein said predetermined length along said horizontal direction which is substantially arcuate extends over at least a portion of said hub section, said front face section and at least a portion of said nose section in the manner defined in the instant claims 7-9.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

De Penti, and Metzger'901, Metzger'156, Betty et al, Openchowski et al, Altherr'978, Altherr'133 are cited to show related railway car coupler knuckle having nose including a flat section.

Kaim is cited to show related railway car coupler knuckle having nose including a flat section in the face portion of the nose in the horizontal direction.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Frantz F. Jules
Examiner
Art Unit 3617

FFJ

February 8, 2003

FRANTZ F. JULES
PATENT EXAMINER
